In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-10. (Cancelled)

11-21. (Cancelled)

22-25. (Canceled)

26. (Currently amended) A composition for fabricating phase-change material microcapsules, comprising:

a waterborne polyurethane aqueous solution, wherein the weight ratio concentration of the waterborne polyurethane aqueous solution is 5% to 40 % by weight over the composition is 0.05 – 0.40;

a phase-change material having a polar functional group and a lipophilic moiety;

a lipophilic monomer dissolved in the phase-change material, wherein the weight ratio concentration of the lipophilic monomer over in the phase-change material is between about 3% and about 12% by weight and the lipophilic monomer over the waterborne polyurethane is 0.03 — 0.12 and between about 25% and about 50% 0.25—0.5, respectively, and the lipophilic monomer is isocyanurate of 1,6-hexamethylene diisocyanate, which can react with the waterborne polyurethane to form shells of the microcapsules; and

a solid wax.

- 27. (Previously presented) The composition of claim 26, wherein the phasechange material is a carboxylic ester.
- 28. (Previously presented) The composition of claim 27, wherein a carboxylate of the carboxylic ester is selected from a group consisting of formate, acetate and propionate.
- 29. (Previously presented) The composition of claim 27, wherein carbon atom number of an alkoxyl group of the carboxylic ester is between 10 and 18.
- 30. (Currently amended) The composition of claim 26, wherein the concentration of the waterborne polyurethane aqueous solution is between about 15% and 35% by weight, wherein the weight ratio of the waterborne polyurethane over the composition is 0.10-0.30.
- 31. (Currently amended) The composition of claim 26, wherein the concentration of the lipophilic monomer in the phase-change material is between about 5% and about 10% by weight, wherein the weight ratio of the lipophilic monomer over the phase-change material is 0.05 0.10.
- 32. (Previously presented and amended) The composition of claim 26, wherein the lipophilic monomer over the waterborne polyurethane is between about 30% and

about 45%, wherein the weight ratio of the lipophilic monomer over the waterborne polyurethane is 0.30 – 0.45.

- 33. (Previously presented) The composition of claim 26, wherein a monomer of the waterborne polyurethane comprises 2,2-bis (hydroxymethyl) propionic acid.
- 34. (Previously presented) The composition of claim 26, wherein a chain extender used to prepare the waterborne polyurethane comprises diamine containing a sulfonate functional group.